

WHAT IS CLAIMED IS:

1. An apparatus for separating gas from a liquid path, comprising:
 - a chamber having a top, a bottom and sides capable of holding at least one of liquid and gas and comprising:
 - a first opening configured to allow at least one of gas and liquid to enter the chamber;
 - a second opening configured to allow at least gas to exit the chamber, said second opening being located in a middle portion of a top of the chamber; and
 - a third opening configured to allow liquid to exit the chamber, said third opening being located in a middle portion of a bottom of the chamber.
2. The apparatus of claim 1, further comprising a housing, wherein the chamber is located within the housing.
3. The apparatus of claim 2, wherein the housing includes at least a first, second and third opening.
4. The apparatus of claim 3, wherein the first housing opening is in fluid communication with the first chamber opening in a wall of the chamber, the second housing opening is in fluid communication with the second chamber opening, and the third housing opening is in fluid communication with the third chamber opening.
5. The apparatus of claim 4, wherein the first and third housing openings are located on a same side surface of the housing.
6. The apparatus of claim 5, wherein the first and third housing openings are located at opposite ends of the same side surface.
7. The apparatus of claim 6, wherein the second housing opening is located on the same side surface substantially midway between the first and third openings.
8. The apparatus of claim 7, wherein the first, second and third housing openings are located at or near a top of the same side surface.
9. The apparatus of claim 8, wherein the first, second and third housing openings are oriented substantially on the same plane.
10. The apparatus of claim 2, wherein the housing includes at least one connection device, wherein the at least one connection device allows connection with at least one of a tube frame, an organ or tissue transporter, and organ or tissue perfusion apparatus, and an organ or tissue diagnostic device.
11. The apparatus of claim 2, wherein at least a part of the housing is transparent.

12. The apparatus of claim 3, wherein tubing is connectible to each of the plurality of openings to be in fluid communication with the openings.

13. The apparatus of claim 12, further comprising a sensor, wherein the sensor is capable of detecting a gas in the tubing connectible to at least one of the first and third housing openings.

14. The apparatus of claim 13, further comprising a flow control valve associated with the third housing opening, wherein the flow control valve prevents liquid from exiting the chamber through tubing connectible to the third housing opening when gas is detected.

15. The apparatus of claim 14, further comprising a flow control valve associated with the tubing connected to the second housing opening, wherein the flow control valve is open when gas is detected to allow gas to leave the chamber.

16. The apparatus of claim 13, wherein the sensor is an ultrasonic sensor.

17. The apparatus of claim 13, further comprising a pump for moving the at least one of liquid and gas through the tubing, wherein the pump stops the flow of the at least one of liquid and gas into the first housing opening when the sensor detects gas in the tubing connectible to the third housing opening.

18. The apparatus of claim 12, wherein the tubing is connectible to at least one of a tube frame, an organ or tissue transporter, and organ or tissue perfusion apparatus, and an organ or tissue diagnostic device.

19. The apparatus of claim 4, further comprising an entrance channel having a first end and a second end, wherein the first end is in fluid communication with the first housing opening and the second end is in fluid communication with the first chamber opening.

20. The apparatus of claim 19, wherein the first housing opening is at or near a top portion of the housing and the first chamber opening is at or near a bottom portion of the chamber.

21. The apparatus of claim 20, wherein at least a portion of the entrance channel is approximately vertical.

22. The apparatus of claim 21, wherein the approximately vertical portion of the channel extends approximately a height of the chamber.

23. The apparatus of claim 21, wherein at least a portion of the entrance channel near the second end is curved.

24. The apparatus of claim 4, further comprising an exit channel having a first exit channel end and a second exit channel end, wherein the first exit channel end is in fluid communication with the third chamber opening and the second exit channel end is in fluid communication with the third housing opening.

25. The apparatus of claim 24, wherein at least a portion of the exit channel is approximately horizontal and the third chamber opening is in fluid communication with the approximately horizontal portion of the exit channel by the first end of the exit channel.

26. The apparatus of claim 25, wherein at least a portion of the exit channel is approximately vertical and one end of the approximately vertical portion is in fluid communication with the approximately horizontal portion and another end of the substantially vertical portion is in fluid communication with the third housing opening.

27. The apparatus of claim 26, wherein the approximately vertical and horizontal portions are connected by a curved portion of the exit channel.

28. The apparatus of claim 25, wherein the approximately horizontal portion of the exit channel extends approximately $\frac{1}{2}$ the length of the bottom wall of the chamber.

29. The apparatus of claim 26, wherein the approximately vertical portion of the exit channel extends approximately the height of a side wall of the chamber.

30. The apparatus of claim 4, further comprising
an entrance channel having a first end and a second end, wherein the first end is in fluid communication with the first housing opening located at or near a top portion of the housing and the second end is in fluid communication with the first chamber opening located at or near a bottom portion of the chamber, wherein at least a portion of the entrance channel is approximately vertical and extends approximately a height of the chamber and at least a portion of the entrance channel near the second end is curved; and

an exit channel having a first exit channel end and a second exit channel end, wherein the first exit channel end is in fluid communication with the third chamber opening and the second exit channel end is in fluid communication with the third housing opening, wherein at least a portion of the exit channel is approximately horizontal and the third chamber opening is in fluid communication with the approximately horizontal portion of the exit channel by the first end of the exit channel, at least a portion of the exit channel is approximately vertical and one end of the approximately vertical portion is in fluid communication with the approximately horizontal portion and another end of the substantially vertical portion is in fluid communication with the third housing opening, the approximately vertical and horizontal portions are connected by a curved portion of the exit channel, wherein the

approximately horizontal portion of the exit channel extends approximately $\frac{1}{2}$ the length of the bottom wall of the chamber and the approximately vertical portion of the exit channel extends approximately the height of a side wall of the chamber.

31. A method for separating gas from a liquid path, comprising:
supplying at least one of liquid and gas to a chamber through a first chamber opening;

removing gas from the chamber through a second chamber opening located in a middle portion of a top wall of the chamber;

removing liquid from the chamber through a third chamber opening located in a middle portion of a bottom wall of the chamber, maintaining enough liquid in the chamber that when the chamber is tilted at an angle up to approximately 90 degrees, only liquid leaves the chamber through the third chamber opening.

32. The method of claim 31, wherein only gas leaves the chamber through the second chamber opening when the housing is tilted at an angle up to approximately 90 degrees.

33. The method of claim 32, wherein and only liquid leaves the chamber through the third chamber opening and only gas leaves the chamber through the second chamber opening when the housing is tilted at an angle from approximately 85 to approximately 90 degrees.

34. The method of claim 31, wherein the chamber is located within a housing.

35. The method of claim 34, further comprising connecting the first chamber opening with a first opening in the housing with an entrance channel having a first end and a second end, wherein the first end is connected to the first housing opening and the second end is connected to the first chamber opening.

36. The method of claim 34, further comprising connecting the third chamber opening with a third housing opening by an exit channel having a first end and a second end, wherein the first exit channel end is connected to the third chamber opening and the second exit channel end is connected to a third housing opening.

37. The method of claim 36, further comprising connecting the second chamber opening to a second housing opening.

38. The method of claim 37, wherein the first, second, and third housing openings are located on a same side of the housing.

39. The method of claim 38, wherein the first, second, and third housing openings are oriented on substantially the same plane.

40. The method of claim 34, further comprising connecting the housing to at least one of a tube frame, an organ or tissue transporter, and organ or tissue perfusion apparatus, and an organ or tissue diagnostic device.

41. The method of claim 34, further comprising connecting tubing to at least one of first, second, and third housing openings.

42. The method of claim 41, further comprising detecting gas in at least one of the tubing connected to the first and third housing openings.

43. The method of claim 42, further comprising closing a flow control valve associated with the third housing opening when gas is detected, thereby effectively preventing liquid from exiting the housing through the tubing connected to the third housing opening.

44. The method of claim 43, further comprising opening a flow control valve associated with the tubing connected to the second housing opening when the flow control valve associated with the third housing opening is closed, thereby effectively removing gas from the chamber.

45. The method of claim 44, wherein the opening and closing of the flow control valves occurs at preset time intervals.

46. The method of claim 45, wherein the gas in the tubing is detected by a sensor.

47. The method of claim 46, further comprising opening and closing the flow control valves as a result of a signal sent by the sensor.

48. The method of 46, wherein the sensor is an ultrasonic sensor.

49. The method of 42, further comprising stopping the flow of the at least one of liquid and gas into the first housing opening when gas is detected in the tubing connected to the third housing opening.

50. The method of claim 41, further comprising connecting the tubing to at least one of a tube frame, an organ or tissue transporter, and organ or tissue perfusion apparatus, and an organ or tissue diagnostic device.

51. The method of claim 34, further comprising forming the housing by mating a plurality of sections.

52. The method of claim 51, further comprising melting an energy director to hermetically seal the sections.

53. The method of claim 52, wherein the energy director is melted by ultrasonic welding.

54. The method of claim 34, wherein when the housing is tilted at an angle between approximately 45 degrees and approximately 90 degrees, only gas leaves the chamber through the second chamber opening and only liquid leaves the chamber through the third chamber opening.

55. The method of claim 34, wherein when the housing is tilted at an angle approximately 70 degrees, only gas leaves the chamber through the second chamber opening and only liquid leaves the chamber through the third chamber opening.

56. An apparatus for transporting an organ or tissue, comprising:
an organ or tissue transporter;
a chamber connectible to the organ transporter, the chamber having a top, a bottom and sides capable of holding at least one of liquid and gas, the chamber comprising:
a first opening configured to allow at least one of gas and liquid to enter the chamber;
a second opening configured to allow at least gas to exit the chamber, said second opening being located in a middle portion of a top of the chamber; and
a third opening configured to allow liquid to exit the chamber, said third opening being located in a middle portion of a bottom of the chamber.

57. The apparatus of claim 56, wherein the chamber is located within a housing, the housing including at least one connection device connectible to the organ transporter.

58. The apparatus of claim 57, wherein the housing includes at least a first, second and third opening and tubing is connectible to each of the first, second, and third openings.

59. The apparatus of claim 58, further comprising a sensor, wherein the sensor is capable of detecting a gas in the tubing.

60. The apparatus of claim 59, further comprising a flow control valve connectible to the organ transporter and associated with the tubing connectible to the third housing opening, wherein the flow control valve prevents liquid from exiting the chamber through tubing connectible to the third housing opening when gas is detected.

61. The apparatus of claim 59, further comprising a flow control valve connectible to the organ transporter and associated with the tubing connectible to the second housing opening, wherein the flow control valve is open when gas is detected to allow gas to leave the chamber.

62. The apparatus of claim 59, wherein the sensor is an ultrasonic sensor.

63. The apparatus of claim 58, further comprising a pump connectible to the organ transporter for moving the at least one of liquid and gas through the tubing, wherein the pump stops the flow of the at least one of liquid and gas into the first housing opening when the sensor detects gas in the tubing connectible to the third housing opening.

64. The apparatus of claim 58, wherein the housing and the tubing are connectible to a tube frame capable of holding at least a plurality of tubes, wherein the tube frame is connectible to the organ transporter.